



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/562,178	07/31/2006	Mikael Svensson	1175/75652	4135
23432	7590	08/24/2010	EXAMINER	
COOPER & DUNHAM, LLP 30 Rockefeller Plaza 20th Floor NEW YORK, NY 10112			ALIE, GHASSEM	
ART UNIT	PAPER NUMBER	3724		
MAIL DATE	DELIVERY MODE	08/24/2010 PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/562,178	Applicant(s) SVENSSON, MIKAEL
	Examiner GHASSEM ALIE	Art Unit 3724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 06/09/10.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-5,7-9,11 and 12 is/are pending in the application.

4a) Of the above claim(s) 2-5,8 and 9 is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1,7, 11 and 12 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 19 May 2010 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO/SB/06)
 Paper No(s)/Mail Date _____

4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date _____

5) Notice of Informal Patent Application

6) Other: _____

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1, 7, 11 and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Regarding claim 1, “central axis (x) (the arc n/180 rx)” does not further limit the claim. It appears that the limitation is a mathematical formula within parentheses. However, the limitation within the parentheses cannot be considered since it does not further limit the claim. If applicant wants the limitation in the parentheses to be considered, the limitation should be positively claimed. In this case, since the limitation is within the parentheses, the limitation does not further limit the claim and it is not considered.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 7, 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Newell et al. (WO 00/02715; hereafter Newell; as previously cited) in view of Mills (US 5,002,524), and Hardisty (GB 2302834), and in further view of Noda et al. (3,895,549), hereinafter Noda, With respect to claims 1 and 11, Newell discloses a machine for slitting plane packaging blanks (2), said machine comprising: a driving roller assembly (40, 40, 56,

56, and additional drive roller; see page 15 lines 7-10) for advancing said packaging blanks; at least one rotatable slitting roller (46) with at least one knife (54) for producing a front edge slit (leading slot; see figures 8a-8c) and a rear edge slit (trailing slot, see figures 8a-8c) in each packaging blank, said knife (54) being sector-shaped, and defined by two knife end edges (knife has two edges formed by the gap which corresponds to the section of the board not cut), a first knife portion adjacent a first knife end edge being adapted to cut the front edge slit (leading slot) out in a front edge of said blank (2), and a second knife portion adjacent a second knife end edge being adapted to cut a rear edge slit (trailing slot) out in the rear edge of said blank (2) and rearwards through said rear edge while said blank (2) is advanced through the machine at a uniform speed (please refer to figures 8-9 for clarification on this sequencing), wherein the sector-shaped knife (54) extends over a per se known central angle v of approx 225-300° (see page 14 lines 22-24), and that the first knife end edge of the first knife portion turns from an initial position - in which the first knife end edge is positioned at a predetermined central angle x from radius to a cutting site substantially corresponding to a desired slit length - and a central angle x forwards until the front edge slit (see figure 8c) has been cut, and wherein said knife (54) is retarded when a knife gap (see figure 9a) is positioned above the blank (2) and wherein the second knife end edge of said second knife portion turns from an initial angular position and downwards into the blank at the cutting site for the production of the rear edge slit (see figure 9b), and is subsequently turned an arc substantially corresponding to a length of the rear edge slit of said blank (see figure 9b and 9c), where said second knife end edge is retarded and then turned forwards in such a manner that the first knife end edge reaches an initial position ready to make slits in a

subsequent packaging blank (2), a back pressure roller (48) comprising two relatively thin, circular disks (55) interspaced a distance corresponding to the thickness of the knife. Newell does not disclose the knife extending a distance into the space between the two circular disks. Newell further does not disclose the back pressure roller being provided with a resilient coating.

Mills discloses a slitter wheel setup (figure 1) comprising a slitter wheel (12) and a back pressure roller (24). The back pressure roller comprises two thin disks (28, 30) which are separated by a distance corresponding to the thickness of the knife. The back pressure roller further comprises a resilient coating (15). During operation, the knife extends into the space between the two circular disks and onto the elastic coating in order to adequately support the board with a respective load while the slotting occurs (see column 3 lines 13-20). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the slitter of Newell to have the backpressure roller aligned in such a way where the knife enters the space between the two thin disks and has an resilient coating in order to help support the slotting load in view of the teachings of Mills.

Newell in view of Mills does not explicitly teach a program timer for controlling the driving motor and rotation of the rotatable slitting roller as the blank has reached a cutting site. However, the use of a program timer for controlling the rotation of a driving motor and knife is old and well known in the art such as taught by Hardisty. Hardisty teaches a machine for slitting plane packing blanks including a driving motor connected to a slitting roller having knife 10, 11. Hardisty also teaches the roller and the knife is driven by timing belts and pulleys connected to a computer-controlled motor 22. In this case, computer-controlled

motor 22 inherently includes a program timer that controls the rotation of the motor and the knife. See last tow lines of page 10 and lines 1-6 of page 11 in Hardisty. The program timer or the computer controlled motor controls the rotation of the motor and the knife as the front edge of the blank has reached the cutting site or the forward edge of the knife. Hardisty teaches that the program rotates or rotating the slitting roller when the leading edge of the blank cutting site. It should be noted that the program or the computer is in control of the driving approaches the motor when the slitting roller approaches the cutting site. It would have been obvious to a person of ordinary skill in the art to provide Newell's machine, as modified by Mills, with the program timer for the motor or computer controlled motor, as taught by Hardisty, in order to control the rotation of the knife and cutting process of the blanks.

Newell in view of Mills and Hardisty does not explicitly teach at least one sensor provided upstream of the one rotatable slitting roller for detecting the packaging blanks and for activating the at least one rotatable slitting roller accordingly. However, the use of a sensor to detect a workpiece and activate a cutting device is well known in the art such as taught by Noda. Noda teaches an apparatus for slitting the front and rear ends of a blank 5. Noda also teaches at least one sensor 20 provided upstream of at least one rotatable slitting roller 3 for detecting the blanks 5 and for activating the at least one rotatable slitting roller 3 accordingly. See Figs. 8a-10 and col. 6, lines 30-66 in Noda. It would have been obvious to a person of ordinary skill in the art to provide Newell's machine for slitting, as modified by Mills and Hardisty, with a sensor and motor control, as taught by Noda, in order to make more accurate cuts in the blanks.

With respect to claim 7, Newell discloses the blanks being made of corrugated board (page 1 lines 1-7).

With respect to claim 12, the modified apparatus of Newell discloses the resilient coating comprising an elastomer, but does not specifically disclose the elastomer being rubber. Examiner notes that rubber is an elastomer. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use rubber as the specific type of elastomer used in the backpressure roller of the modified apparatus of Newell, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin, 125 USPQ 416.*

5. Claims 1, 7, 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Newell et al. (WO 00/02715; hereafter Newell; as previously cited) in view of Mills (US 5,002,524), and Hardisty (GB 2302834) and in further view of Baron et al. (5,386,753), hereinafter Baron. With respect to claims 1 and 11, Newell discloses a machine for slitting plane packaging blanks (2), said machine comprising: a driving roller assembly (40, 40, 56, 56, and additional drive roller; see page 15 lines 7-10) for advancing said packaging blanks; at least one rotatable slitting roller (46) with at least one knife (54) for producing a front edge slit (leading slot; see figures 8a-8c) and a rear edge slit (trailing slot, see figures 8a-8c) in each packaging blank, said knife (54) being sector-shaped, and defined by two knife end edges (knife has two edges formed by the gap which corresponds to the section of the board not cut), a first knife portion adjacent a first knife end edge being adapted to cut the front edge slit (leading slot) out in a front edge of said blank (2), and a second knife portion

adjacent a second knife end edge being is adapted to cut a rear edge slit (trailing slot) out in the rear edge of said blank (2) and rearwards through said rear edge while said blank (2) is advanced through the machine at a uniform speed (please refer to figures 8-9 for clarification on this sequencing), wherein the sector-shaped knife (54) extends over a per se known central angle v of approx 225-300° (see page 14 lines 22-24), and that the first knife end edge of the first knife portion turns from an initial position - in which the first knife end edge is positioned at a predetermined central angle x from radius to a cutting site substantially corresponding to a desired slit length - and a central angle x forwards until the front edge slit (see figure 8c) has been cut, and wherein said knife (54) is retarded when a knife gap (see figure 9a) is positioned above the blank (2) and wherein the second knife end edge of said second knife portion turns from an initial angular position and downwards into the blank at the cutting site for the production of the rear edge slit (see figure 9b), and is subsequently turned an arc substantially corresponding to a length of the rear edge slit of said blank (see figure 9b and 9c), where said second knife end edge is retarded and then turned forwards in such a manner that the first knife end edge reaches an initial position ready to make slits in a subsequent packaging blank (2), a back pressure roller (48) comprising two relatively thin, circular disks (55) interspaced a distance corresponding to the thickness of the knife. Newell does not disclose the knife extending a distance into the space between the two circular disks. Newell further does not disclose the back pressure roller being provided with a resilient coating.

Mills discloses a slitter wheel setup (figure 1) comprising a slitter wheel (12) and a back pressure roller (24). The back pressure roller comprises two thin disks (28, 30) which are

separated by a distance corresponding to the thickness of the knife. The back pressure roller further comprises a resilient coating (15). During operation, the knife extends into the space between the two circular disks and onto the elastic coating in order to adequately support the board with a respective load while the slotting occurs (see column 3 lines 13-20). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the slitter of Newell to have the backpressure roller aligned in such a way where the knife enters the space between the two thin disks and has an resilient coating in order to help support the slotting load in view of the teachings of Mills.

Newell in view of Mills does not explicitly teach a program timer for controlling the driving motor and rotation of the rotatable slitting roller as the blank has reached a cutting site. However, the use of a program timer for controlling the rotation of a driving motor and knife is old and well known in the art such as taught by Hardisty. Hardisty teaches a machine for slitting plane packing blanks including a driving motor connected to a slitting roller having knife 10, 11. Hardisty also teaches the roller and the knife is driven by timing belts and pulleys connected to a computer-controlled motor 22. In this case, computer-controlled motor 22 inherently includes a program timer that controls the rotation of the motor and the knife. See last tow lines of page 10 and lines 1-6 of page 11 in Hardisty. The program timer or the computer controlled motor controls the rotation of the motor and the knife as the front edge of the blank has reached the cutting site or the forward edge of the knife. Hardisty teaches that the program rotates or rotating the slitting roller when the leading edge of the blank cutting site. It should be noted that the program or the computer is in control of the driving approaches the motor when the slitting roller approaches the cutting site. It would

have been obvious to a person of ordinary skill in the art to provide Newell's machine, as modified by Mills, with the program timer for the motor or computer controlled motor, as taught by Hardisty, in order to control the rotation of the knife and cutting process of the blanks.

Newell in view of Mills and Hardisty does not explicitly teach at least one sensor provided upstream of the one rotatable slitting roller for detecting the packaging blanks and for activating the at least one rotatable slitting roller accordingly. However, the use of a sensor to detect a workpiece and activate a cutting device is well known in the art such as taught by Baron. Baron teaches an apparatus for cutting the front and rear ends of a blank 28. Baron also teaches at least one sensor 60 provided upstream of at least one cutter 56, 58 for detecting the blanks 28 and for activating the at least one cutter 56, 58 accordingly. See Fig. 1 and col. 4, lines 5-24 in Baron. It would have been obvious to a person of ordinary skill in the art to provide Newell's machine for slitting, as modified by Mills and Hardisty, with a sensor and motor control, as taught by Barron, in order to make more accurate cuts in the blanks.

With respect to claim 7, Newell discloses the blanks being made of corrugated board (page 1 lines 1-7).

With respect to claim 12, the modified apparatus of Newell discloses the resilient coating comprising an elastomer, but does not specifically disclose the elastomer being rubber. Examiner notes that rubber is an elastomer. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use rubber as the specific type of elastomer used in the backpressure roller of the modified apparatus of

Newell, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin, 125 USPQ 416.*

Response to Arguments

6. Applicant's argument that Newell does not suggest a slitting roller or back-pressure roller as claimed is not persuasive. As stated above, Newell in view of Mills teaches the slitting roller and the back-pressure roller as claimed. Applicant's argument that Newell does not teach a program timer that controls the driving motor and rotation of the rotatable slitting roller such that when the front edge of the blank has reached a cutting site the program timer turns the rotatable slitting roller such that the first knife end edge of the first knife portion turns from the initial position forward until the front edge slit has been cut. Firstly, Newell teaches that as the driving motor rotates the rotatable slitting roller, the first knife end edge of the first knife portion turns from the initial position forward until the front edge slit has been cut. See Fig. 8 (a)-8(c) in Newell. Newell does not teach explicitly a program timer for controlling the rotation of the slitting roller. However, as stated above, Hardisty teaches a program timer or a computer which inherently includes a program for controlling the motor which drives the slitting roller. Hardisty also teaches that the program rotates or rotates the slitting roller when the leading edge of the blank cutting site. It should be noted that the program or the computer is in control of the driving approaches the motor when the slitting roller approaches the cutting site.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ghasssem Alie whose telephone number is (571) 272-4501. The examiner can normally be reached on Mon-Fri 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer Ashley reached on (571) 272-4502. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, SEE <http://pair-direct.uspto.gov>. Should you have questions on

access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ghassem Alic/
Primary Examiner, Art Unit 3724

August 20, 2010